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APPLICATION NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO.
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09/486,259 06/07/95 HARVEY 3 5634.361

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THOMAS J SCOTT JR
HOWREY & SIMON
1299 PENNSYLVANIA AVENUE NW
WASHINGTON DC 20004

EXAMINER

VII-N

ART UNIT	PAPER NUMBER
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2604 S

DATE MAILED:

12/23/96

This is a communication from the examiner in charge of your application.
COMMISSIONER OF PATENTS AND TRADEMARKS

OFFICE ACTION SUMMARY

Responsive to communication(s) filed on 12-7-95

This action is FINAL.

Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 D.C. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire — 3 — month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

Claim(s) 6-29 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

Claim(s) _____ is/are allowed.

Claim(s) 6-29 is/are rejected.

Claim(s) _____ is/are objected to.

Claims _____ are subject to restriction or election requirement.

Application Papers

See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

The drawing(s) filed on _____ is/are objected to by the Examiner.

The proposed drawing correction, filed on _____ is approved disapproved.

The specification is objected to by the Examiner.

The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

All Some* None of the CERTIFIED copies of the priority documents have been received.

received in Application No. (Series Code/Serial Number) _____

received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

Notice of Reference Cited, PTO-892

Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

Interview Summary, PTO-413

Notice of Draftsperson's Patent Drawing Review, PTO-948

Notice of Informal Patent Application, PTO-152

— SEE OFFICE ACTION ON THE FOLLOWING PAGES —

1. This action is in response to the amendment filed December 7, 1995.
2. This action will not attempt to determine the effective filing date of this application. The action will apply art against the claims using two possible effective filing dates, i.e. serial number 06/317,510, filed November 3, 1981, and serial number 07/096,096, filed September 11, 1987. Applicants can overcome the art rejections by establishing that the art applied does not meet the claimed limitations or that the art does not have an early enough filing date.

The action will make initial double patenting rejections presuming that all of the present claims were fully disclosed in both the '81 and '87 cases.

In any rejections made under 35 USC 112, first paragraph, applicants will be asked to clarify, where required by the examiner, how the present claims are fully disclosed in both the '81 and '87 cases.

3. Applicants are reminded of their duty to maintain a line of patentable demarcation between related applications. It has been noted by the PTO that many of the pending applications have similar claimed subject matter. In the related 327 applications (the serial numbers are included in a list below), it is estimated that there may be between 10,000 and 20,000 claims. Applicants should insure that substantially duplicate claims do not appear in different cases, and should bring to the PTO's

attention instances where similar claims have been treated inconsistently, i.e. rejected in one case but not in another.

4. Applicants are cautioned that their continual use of alternatives in the claims raises questions concerning the exact claim meaning. More importantly, it raises questions whether the disclosure supports every possible embodiment or permutation that can be created by the alternative language.

5. The double patenting rejections in this action are based on the premise that all of the present claims were fully disclosed in U.S. Patents 4,694,490; 4,704,725; 4,965,825; and 5,109,414. Since there was a restriction made in 5,233,654, there will be no double patenting made on that patent or 5,335,277.

6. The PTO's copies of the parent files are in poor form since they have been copied many time by members of the public. The files also are missing some of the papers. The double patenting rejections below presumes that there were no requirements for restriction made in any of the parent files.

7. There are three types of double patenting rejections:

- a) Statutory double patenting rejection under 35 USC 101,
- b) Nonstatutory obvious type double patenting,
- c) Nonstatutory non-obviousness type double patenting.

In this action, the rejections of the third type that are directed to the claims of the parent patented files will have two different versions. The first rejects the claims because they have not been established to be independent and distinct from the

patented claims. The second version includes that premise, and further supports the rejection by establishing that representative claims from this application have common subject matter with representative ones of the patented claims.

8. Claims 6-29 (all of the claims in this application) are rejected under the judicially created doctrine of non-obviousness non-statutory double patenting over the patented claims in U.S. Patents 4,694,490; 4,704,725; 4,965,825; and 5,109,414 since the claims, if allowed, would improperly extend the "right to exclude" already granted in those patents.

The subject matter claimed in the instant application is fully disclosed in the patents and is covered by the patents since the patents and the application are claiming common subject matter, as follows: a signal processing apparatus and method including an interactive communications system apparatus and method. Furthermore, there is no apparent reason why applicants were prevented from presenting claims corresponding to those of the instant application during prosecution of the parent applications which matured into patents. *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

A review of the claims in each of the four parent patents (5,109,414; 4,964,825; 4,704,725; 4,694,490) was made. These patented claims do not appear "independent and distinct" from the claims in this application. The present claims are directed to a method and apparatus for controlling communications including

television communications or programming. The claims in patent 5,109,414 were directed to a processing system and method for signal distribution including television. The claims in patent 4,965,825 were directed to a system and process for signal processing including carrier communications. The claims in patent 4,704,725 were directed to a method of communicating data to receiver stations. The claims in patent 4,694,490 were directed to a method for communicating and processing television programs.

Applicants' invention can be envisioned at in three parts. As with most cable TV systems, there is a head end station which generates the video programming. Applicants have included an intermediate station which receives transmissions, from the head end or subscriber stations, and distributes the programming to each subscriber. The subscriber station receives the programming, and can communicate to the intermediate station with requests or instructions. Even if the claims directed to each station were "independent and distinct" from the claims directed to the other stations, there would be no reason to "restrict" between the three stations since their overall function is so interrelated that the stations have the same search area, i.e the PTO could not establish a burden if required to search for all three stations.

It is believed that CCPA in Schneller used the "independent and distinct" standard as the main factor in its determination

that the double patenting rejection should be affirmed. The CCPA stated that the fundamental reason supporting the principle of non-statutory double patenting rejections is to prevent unjustified timewise extension of the right to exclude granted by a patent no matter how the extension is brought about. Further the CCPA stated at 158 USPQ 210 (214):

"... To conform to this reason and to prevail here, appellant has the burden of establishing that the invention in his patent is "independent and distinct" from the invention of the appealed claims. The public policy considerations underlying 35 U.S.C. 121 permit separate patents on "independent and distinct" inventions which are initially "claimed in one application." The statute places initial responsibility for this determination on the Commissioner of Patents. Where, as here, no such determination has been made, it is necessary to scrutinize carefully an applicant's voluntary alleged determination of this issue for it can lead to the improper proliferation of patents on the same invention with the inherent result of extending timewise a patentee's right to exclude others from the invention disclosed in the original application and on which his patent has issued."

The CCPA further stated at page 215 the length of time between an earlier patent and a later filed application should be considered. The filing date of this application was over seven years after the first patent issued (serial number 06/317,510, filed November 3, 1981, patented as 4,694,490 on September 15, 1987) and over four years after the first CIP issued as a patent (serial number 07/096,096, filed September 11, 1987, patented as 4,965,825 on October 23, 1990).

To the extent that one would view *Schneller* and *In re Kaplan*, 789 F.2d 1574, 229 USPQ 678 (Fed. Cir. 1986) to be in conflict, it is clear that *Schneller* is the controlling precedent

to the factual situation here. In *Schneller*, the Court specifically distinguished a situation of the same applicant from one where the application and patent had different inventive entities. In *Kaplan*, the inventive entities between the patent and application were different, as was required at the time of the *Kaplan* invention, since *Kaplan*'s filing date was before the Patent Law Amendments Act of 1984. In this present case, as with *Schneller*, the inventive entities of the application and patent are the same. Clearly, *Kaplan* was required, or entitled, to file separate applications, whereas applicants and *Schneller* did not have reason to do so. Finally, decisions of a three-judge panel of the Federal Circuit cannot overturn prior precedential decisions of the CCPA. See *UMC Elec. Co. v. United States* 2 USPQ2d 1465.

9. Claims 6-29 (all of the claims in this application) are rejected under the judicially created doctrine of non-obviousness non-statutory double patenting over the patented claims in U.S. Patents 4,694,490; 4,704,725; 4,965,825; and 5,109,414 since the claims, if allowed, would improperly extend the "right to exclude" already granted in those patents.

This rejection incorporates the rejection above. That double patenting rejection is further supported by *Schneller* because the great majority of the patented claims are

"comprising" type claims.¹ While it is recognized that the specific claim limitations in the application may not have been claimed in the patents, that alone does not establish grounds for overcoming this rejection. The patent claims were directed to parts of applicants' total disclosed system or process. Therefore the recitation of "comprising" enables those patented claims to "cover" claim features now recited by applicants' present application claims.

Since the head end, intermediate, and subscriber stations are part of the overall system, claims to one part "cover" the other part(s) under the *Schneller* decision (page 215), since the preferred embodiment would include all three parts of the main system, i.e. head, intermediate, and subscriber stations. For example, claims to the subscriber station still cover the intermediate station because the subscriber station would be processing information that had to come from the intermediate station. A second example would be that claims to one aspect or function of the intermediate station would cover the invention of another aspect or function of the intermediate station since both functions could be performed with the other. Applicants' disclosed system includes similar features in the head, intermediate, and subscriber stations. For example, the stations

¹The claims that recite neither "comprising" nor "consisting" are considered to recite open claim language, i.e. equivalent to "comprising". See, for example, claim 1 of Patent 5,109,414.

can transmit and receive, and have computer, processor and controller capabilities. For that reason, the disclosure will permit broadly drafted claims to read on either the head, intermediate, or subscriber station. Patent claims that recite receiving and transmitting can cover both intermediate and subscriber stations. The fact that patent claims and application claims are directed to different elements does not prohibit this rejection if there is common or interrelated subject matter recited. The Court in *Schneller* stated at page 215:

"... They "cover" the preferred form ABCXY, common to the patent and this application, in the same sense. The fact that X and Y are distinct elements, performing, independent functions, so that either can be employed without the other, does not change this fact. Neither does appellant's omission of reference to the lip Y from his patent claims."

Application claim 16 is a representative claim. It is directed to a method of controlling a transmitter station by receiving data and delivering it to a transmitter, the data comprising an instruct signal effective to coordinate presentation of the data with a second presentation sequence, receiving control signals which control the communication of the data, and transmitting the control signals.

A review of representative ones of the patented claims will demonstrate that the patented claims cover the invention claimed in this application:

- a) In patent 4,694,490, claim 7 is representative of the claimed method for communicating TV program information to a receiver station. The receiver station receives the video

data, displays it, detects the presence of overlay information using an instruct signal, and has computers generate and transmit this overlay info to the display.

b) In patent 4,704,725, claim 3 is representative, and, as summarized below, recites a method of communicating data comprising:

- a) multiple receivers, each with a computer,
- b) transmitting instruct to transmit signals to the computers,
- c) detecting the signals and coupling them to the selected computers,
- d) having the computers control their own selected output device.

c) In patent 4,965,825, claim 24 is representative, and, as summarized below, recites generating a computer output having the steps of:

- a) having multiple receivers, each with a computer,
- b) transmitting an instruct to generate signal to the computers,
- c) causing the computers to generate individual user output information.

d) In patent 5,109,414, claim 15 is representative, and, as summarized below, recites a signal processing system (including):

- a) receiver/distribution means,
- b) switch means,
- c) control signal detector means for transferring data to storage means,
- d) storage means for storing and transferring data to processor means,
- e) processor means for controlling.

While claim 15 is an apparatus claim, a method claim and apparatus claim do not in themselves establish groups that are "independent and distinct".

The patented claims are also primarily directed to methods or structure to control element(s) either directly at that station or at another remote station. This control is generally completed with the reception or recognition of an instruct signal. The same common concept exists in application claim 16. All of the claims, both patented and pending in this application, when considered together, effectively recite parts of the preferred embodiment, i.e. a head, intermediate, and subscriber station. The patented claims "cover" the claims of the application because the patented limitations do not exclude the limitations of this application.

In the arguments above, the examiner, when discussing several of the patents, stated that the patented claims were broad enough to read on multiple stations. While it is believed this analysis is correct, it is not critical to this rejection. Since the patented claims recite limitations that are interrelated with other similar features claimed in this application, it is the examiner's position that those patented claims "cover" the application claims because all of these claimed features (both in the patent and application) describe what is effectively the preferred embodiment.

The claims in this application, if allowed without a terminal disclaimer, would continue patent protection of the preferred embodiment, i.e. the complete system of the head, intermediate, and subscriber stations, beyond the expiration of applicants' parent patents.

10. A determination of a possible non-statutory double patenting rejection obvious-type in each of the related 327 applications over each other will be deferred until a later time. This action is taken in view of the possibility that many of these applications may be abandoned or merged.

11. Claims 6-29 are rejected under the judicially created doctrine of double patenting over the claims of copending U.S application 08/113,329 and the following related U.S applications (all of the application are series 08):

Serial Number: 08/486,258
Art Unit: 2619

-13-

#	Ser. No.	#	Ser. No.	#	Ser. No.
1	397371	2	397582	3	397636
4	435757	5	435758	6	437044
7	437045	8	437629	9	437635
10	437791	11	437819	12	437864
13	437887	14	437937	15	438011
16	438206	17	438216	18	438659
19	439668	20	439670	21	440657
22	440837	23	441027	24	441033
25	441575	26	441577	27	441701
28	441749	29	441821	30	441880
31	441942	32	441996	33	442165
34	442327	35	442335	36	442369
37	442383	38	442505	39	442507
40	444643	41	444756	42	444757
43	444758	44	444781	45	444786
46	444787	47	444788	48	444887
49	445045	50	445054	51	445290
52	445294	53	445296	54	445328
55	446123	56	446124	57	446429
58	446430	59	446431	60	446432
61	446494	62	446553	63	446579
64	447380	65	447414	66	447415
67	447416	68	447446	69	447447
70	447448	71	447449	72	447496
73	447502	74	447529	75	447611
76	447621	77	447679	78	447711
79	447712	80	447724	81	447726
82	447826	83	447908	84	447938
85	447974	86	447977	87	448099
88	448116	89	448141	90	448143
91	448175	92	448251	93	448309
94	448326	95	448643	96	448644
97	448662	98	448667	99	448794
100	448810	101	448833	102	448915
103	448916	104	448917	105	448976
106	448977	107	448978	108	448979
109	449097	110	449110	111	449248
112	449263	113	449281	114	449291

Serial Number: 08/486,258

Art Unit: 2619

-14-

#	Ser. No.	#	Ser. No.	#	Ser. No.
115	449302	116	449351	117	449369
118	449411	119	449413	120	449523
121	449530	122	449531	123	449532
124	449652	125	449697	126	449702
127	449717	128	449718	129	449798
130	449800	131	449829	132	449867
133	449901	134	450680	135	451203
136	451377	137	451496	138	451746
139	452395	140	458566	141	458699
142	458760	143	459216	144	459217
145	459218	146	459506	147	459507
148	459521	149	459522	150	459788
151	460043	152	460081	153	460085
154	460120	155	460187	156	460240
157	460256	158	460274	159	460387
160	460394	161	460401	162	460556
163	460557	164	460591	165	460592
166	460634	167	460642	168	460668
169	460677	170	460711	171	460713
172	460743	173	460765	174	460766
175	460770	176	460793	177	460817
178	466887	179	466888	180	466890
181	466894	182	467045	183	467904
184	468044	185	468323	186	468324
187	468641	188	468736	189	468994
190	469056	191	469059	192	469078
193	469103	194	469106	195	469107
196	469108	197	469109	198	469355
199	469496	200	469517	201	469612
202	469623	203	469624	204	469626
205	470051	206	470052	207	470053
208	470054	209	470236	210	470447
211	470448	212	470476	213	470570
214	470571	215	471024	216	471191
217	471238	218	471239	219	471240
220	472066	221	472399	222	472462
223	472980	224	473213	225	473224
226	473484	227	473927	228	473996

Serial Number: 08/486,258
Art Unit: 2619

-15-

#	Ser. No.	#	Ser. No.	#	Ser. No.
229	473997	230	473998	231	473999
232	474119	233	474139	234	474145
235	474146	236	474147	237	474496
238	474674	239	474963	240	474964
241	475341	242	475342	243	477547
244	477564	245	477570	246	477660
247	477711	248	477712	249	477805
250	477955	251	478044	252	478107
253	478544	254	478633	255	478767
256	478794	257	478858	258	478864
259	478908	260	479042	261	479215
262	479216	263	479217	264	479374
265	479375	266	479414	267	479523
268	479524	269	479667	270	480059
271	480060	272	480383	273	480392
274	480740	275	481074	276	482573
277	482574	278	482857	279	483054
280	483169	281	483174	282	483269
283	483980	284	484275	285	484276
286	484858	287	484865	288	485282
289	485283	290	485507	291	485775
292	*****	293	486259	294	486265
295	486266	296	486297	297	487155
298	487397	299	487408	300	487410
301	487411	302	487428	303	487506
304	487516	305	487526	306	487536
307	487546	308	487556	309	487565
310	487649	311	487851	312	487895
313	487980	314	487981	315	487982
316	487984	317	488032	318	488058
319	488378	320	488383	321	488436
322	488438	323	488439	324	488619
325	488620	326	498002	327	511491

The subject matter claimed in the instant application is fully disclosed in the referenced copending applications and would be covered by any patent granted on that copending applications since the referenced copending applications and the instant application are claiming common subject matter, as follows: a signal processing apparatus and method including an interactive communications system apparatus and method.

Furthermore, there is no apparent reason why applicant would be prevented from presenting claims corresponding to those of the instant application in the other copending applications. *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

A review of the claims in the related copending applications was made. These claims do not appear independent and distinct from the claims in this application. It is believed that CCPA in *Schneller* used the "independent and distinct" standard as the main factor in its determination that the double patenting rejection should be affirmed. The relevant arguments in the preceding paragraphs in support of this position are incorporated herein.

12. It is acknowledged that a multiplicity rejection was mailed on July 27, 1989 in parent file 07/096,096. In this rejection, the examiner had limited the applicants to 25 claims.

Schneller did not equate a multiplicity rejection with a restriction requirement as a permissible exception to being

subject to the non-obvious non--statutory double patenting rejection. For that reason, this action will not overturn the legal reasoning in *Schneller* which supports the non-statutory non-obviousness double patenting rejection above.

It is believed, however, that applicants arguments on this multiplicity issue can be better supported if a nexus is established between the claims of this application and those that were cancelled in 07/096,096 in response to the multiplicity requirement.

Notwithstanding the comment above, at the time the examiner made the multiplicity rejection, there was a body of case law that had overturned similar rejections. Note *In re Flint* 162 USPQ 228 (CCPA 1969) and *In re Wakefield*, 164 USPQ 636 (CCPA 1970).

13. The non-statutory double patenting rejection, whether of the obvious-type or non-obvious-type, is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent. *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); *In re Van Ornam*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); and *In re Goodman*, 29 USPQ2d 2010 (Fed. Cir. 1993).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321 (b) and (c) may be used to overcome an actual or provisional rejection based on a non-statutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.78 (d).

Effective January 1, 1994, a registered attorney or agent of record may sign a Terminal Disclaimer. A Terminal Disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

14. Claims 6-29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regards as the invention.

The examiner must be able to determine the meets and bounds of the claims to perform an effective search and analysis over the art. The examiner is not certain that the meets and bounds of these claims can be determined because of the language in the disclosure and claims. For example, the disclosure teaches many transmitter and receiver stations, instruct signals, control signals, decoders, etc. (This is just a partial list of terms in applicants' disclosure that apply to plural elements in that disclosure.) When these phrases are claimed, the examiner needs to know "which" element in the disclosure is performing the claimed step. For example, when a hypothetical claim recites "transmitter station", and the disclosure teaches different ones (those in the origination, intermediate, and subscriber stations), the examiner needs to be able to envision what applicants could be claiming.

Applicants' assigned multiple meanings to words in a claim makes a claim indefinite.

Traditionally, examiners "diagram" claims to determine the meets and bounds. To explain what "diagramming" means, the examiner attempts to draw a picture (generally a circuit or a connection of block elements in an electrical application) which

represents what was claimed so that the examiner can visualize how a mythical reference could anticipate the claim, if the claim was given its broadest reading. If the claim recites terms or phrases that have multiple meanings in the disclosure, the examiner can't determine whether the diagram of the claim is correct. Given that, how can the examiner determine whether the art, that could anticipate the broadest reading of the claim, was searched for?

Admittedly, the size of applicants' disclosure with its numerous possible implementations is contributing to the problem, but the problem does exist. Applicants are being requested to reference the claim limitations in this application to the disclosure so that the meets and bounds of these claims can be properly considered. This can be done in a remarks section, the claims do not have to be amended.

15. Claims 6-10, 16-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

For claim 6, "a viewer interest" is recited twice in this claim on lines 13-14 and line 24. Does the applicant refer to a same limitation?

For claim 16 recites the limitation "said remote transmitter station" in line 2. There is insufficient antecedent basis for

this limitation in the claim. Claims 17-18 are rejected as being dependent upon the rejected base claim 16.

16. Claims 6-20, 23-29 are rejected under 35 U.S.C. 102(e) as being anticipated by Boland et al. (US #4,484,218).

For claim 6, Boland discloses a method of generating and delivering an individualized mass medium program (Col. 1, line 66 to Col. 2, line 25) presentation at a receiver station (Fig. 1, distribution terminal 4), said receiver station having a receiver (Col. 5, lines 2-4) for receiving a mass medium program signal, a computer (Fig. 2, computer 23) for generating and communicating information (Col. 16, lines 3-11), and one or more output devices (Fig. 2, converters 18 and dplexers 19) operatively connected to said receiver and said computer for delivering to a viewer a mass medium program (Col. 5, lines 52-57) and computer information (Col. 16, lines 3-11), with said computer comprising one or more data storage locations (Col. 5, lines 45-48), said method comprising the steps of:

storing a timing signal (Col. 7, lines 5-9) and viewer interest identification data (Col. 5, lines 45-49) specifying a plurality of different viewer interest (Col. 5, lines 45-46);

controlling said computer a first time based on a comparison of said viewer interest identification data to other data (Col. 5, lines 48-49), said first step of controlling comprising:

(a) inputting into said computer further data designating a viewer interest (Col. 5, line 48);

(b) selecting a plurality of signals, each selected signal including a control signal respecting a different viewer interest (Col. 5, line 48);

(c) storing each selected signal at a storage location (Col. 5, line 49);

controlling said computer a second time based on said comparison, said second step of controlling comprising:

(a) selecting one or more computer programming information instructions (Col. 5, lines 48-50);

(b) generating mass medium program information content in respect to a viewer interest (Col. 5, lines 50-51);

(c) preparing to communicate generated mass medium program information content upon instruction (Col. 5, lines 52-53);

controlling said computer a third time based on said comparison, said third step of controlling comprising:

(a) selecting some mass medium program information content (Col. 5, lines 54-55);

(b) selecting a location (Col. 5, lines 55-56);

(c) communicating said selected mass medium program information content to said selected location (Col. 5, lines 55-56); and

presenting to a subscriber at a controlled time a mass medium program with locally generated mass medium program information content (Col. 5, lines 52-57), with said mass medium

program and said locally generated mass medium program information content being outputted to said subscriber as parallel presentation at a plurality of output devices (Col. 5, lines 59-62).

For claim 7, Boland discloses a method of generating and delivering an individualized mass medium program (Col. 1, line 66 to Col. 2, line 25) presentation at a receiver station (Fig. 1, distribution terminal 4), said receiver station having a receiver (Col. 5, lines 2-4) for receiving a mass medium program signal, a computer (Fig. 2, computer 23) for generating and communicating information (Col. 16, lines 3-11), and one or more output devices (Fig. 2, converters 18 and diplexers 19) operatively connected to said receiver and said computer for delivering to a viewer a mass medium program (Col. 5, lines 52-57) and computer information (Col. 16, lines 3-11), with said computer comprising one or more data storage locations (Col. 5, lines 45-48), said method comprising the steps of:

storing a timing signal (Col. 7, lines 5-9) and a plurality of identification signals specifying different viewer interest (Col. 5, line 49);

controlling said computer a plurality of times, each time based on a comparison of identification signals to other data (Col. 5, line 49; Col. 2, line 41), said first step of controlling comprising:

- (a) inputting further data designating a viewer interest (Col. 5, line 48; Col. 2, line 41);
- (b) selecting a signal, each selected signal including a control signal respecting a mass medium program (Col. 5, line 50);
- (c) storing each selected signal at a storage location (Col. 5, line 49), some of said selected stored signals designating different viewer interests;
 - controlling said computer one or more times based on a comparison of said identification signal to other data, said second step of controlling comprising:
 - (a) selecting one or more computer programming information instructions (Col. 5, lines 48-50);
 - (b) generating mass medium program information content in respect to a viewer interest (Col. 5, lines 50-51);
 - (c) preparing to communicate generated mass medium program information content upon instruction (Col. 5, lines 52-53);
 - controlling said computer one or more times based on a comparison of said identification signal to other data, said third step of controlling comprising:
 - (a) selecting some mass medium program information content (Col. 5, lines 54-55);
 - (b) selecting a location (Col. 5, lines 55-56);

(c) communicating said selected mass medium program information content to said selected location (Col. 5, lines 55-56); and

presenting to a subscriber at a controlled time a mass medium program with locally generated mass medium program information content (Col. 5, lines 52-57), with said mass medium program and said locally generated mass medium program information content being outputted to said subscriber as parallel presentation at a plurality of output devices (Col. 5, lines 59-62).

For claim 8, Boland discloses a method of generating and delivering an individualized mass medium program (Col. 1, line 66 to Col. 2, line 25) presentation at a receiver station (Fig. 1, distribution terminal 4), said receiver station having a receiver (Col. 5, lines 2-4) for receiving a mass medium program signal, a computer (Fig. 2, computer 23) for generating and communicating information (Col. 16, lines 3-11), and one or more output devices (Fig. 2, converters 18 and diplexers 19) operatively connected to said receiver and said computer for delivering to a viewer a mass medium program (Col. 5, lines 52-57) and computer information (Col. 16, lines 3-11), with said computer comprising one or more data storage locations (Col. 5, lines 45-48), said method comprising the steps of:

storing a timing signal (Col. 7, lines 5-9) and identification data (Col. 5, lines 45-49), each identification

datum specifying a different viewer interest (Col. 5, lines 45-46);

controlling said computer a first time based on a comparison of said identification data to other data (Col. 5, lines 48-49), said first step of controlling comprising:

(a) inputting to said computer data designating a viewer interest (Col. 5, line 48);

(b) selecting a first signal, each selected first signal including a control signal respecting a mass medium program presentation (Col. 5, line 49);

(c) storing each selected first signal at a storage location (Col. 5, line 49);

controlling said computer a second time based on said comparison, said second step of controlling comprising:

(a) inputting data designating a viewer interest (Col. 5, line 49)

(b) selecting a second signal, each selected second signal including a control signal respecting a mass medium program presentation (Col. 5, line 50);

(c) communicating each selected second signal to a processor and a storage location (Col. 5, lines 54-55);

controlling said computer a third time based on said comparison, said third step of controlling comprising:

(a) inputting data designating a viewer interest (Col. 5, line 49);

(b) selecting a third signal, each selected third signal including mass medium program information content and control signal (Col. 5, line 55);

(c) communicating each selected third signal to a processor and an output device (Col. 5, line 54); and

presenting to a subscriber a mass medium program with local mass medium program information content (Col. 5, lines 52-57), with said mass medium program and said local mass medium program information content being outputted to said subscriber as parallel presentation at a plurality of output devices (Col. 5, lines 59-62).

For claim 9, Boland discloses a method of generating and delivering an individualized mass medium program (Col. 1, line 66 to Col. 2, line 25), presentation at a receiver station (Fig. 1, distribution terminal 4), said receiver station having a receiver (Col. 5, lines 2-4) for receiving a mass medium program signal, a computer (Fig. 2, computer 23) for generating and communicating information (Col. 16, lines 3-11), and one or more output devices (Fig. 2, converters 18 and diplexers 19) operatively connected to said receiver and said computer for delivering to a viewer a mass medium program (Col. 5, lines 52-57) and computer information (Col. 16, lines 3-11), with said computer comprising one or more data storage locations (Col. 5, lines 45-48), said method comprising the steps of:

storing a timing signal (Col. 7, lines 5-9) and signal identification data designating a specific signal type (Col. 5, lines 45-49);

controlling said computer a first time based on a comparison of said signal identification data to other data (Col. 5, lines 48-49), said first step of controlling comprising:

(a) selecting a first signal, each selected first signal including a control signal respecting a mass medium program presentation (Col. 5, line 49);

(b) storing each selected first signal at a storage location (Col. 5, line 49);

controlling said computer a second time based on said comparison, said second step of controlling comprising:

(a) selecting a second signal, each selected second signal including a control signal respecting a mass medium program presentation (Col. 5, line 50);

(b) communicating each selected second signal to a processor (Col. 5, lines 54-55);

controlling said computer a third time based on said comparison, said third step of controlling comprising:

(a) identifying a third signal, each identified third signal being a control signal designating a signal type (Col. 2, line 41);

(b) communicating each identified third signal to a processor or an output device (Col. 5, line 54);

controlling said computer a fourth time based on said comparison, said fourth step of controlling comprising:

(a) selecting a first signal (Col. 5, line 49); and
(b) communicating some mass medium program information content in response to a control signal (Col. 5, lines 52-57); and

presenting to a subscriber a mass medium program with local mass medium program information content (Col. 5, lines 52-57), with said mass medium program and said local mass medium program information content being outputted to said subscriber as parallel presentation at a plurality of output devices (Col. 5, lines 59-62).

For claim 10, Boland discloses a method of generating and delivering an individualized mass medium program (Col. 1, line 66 to Col. 2, line 25) presentation at a receiver station (Fig. 1, distribution terminal 4), said receiver station having a receiver (Col. 5, lines 2-4) for receiving a mass medium program signal, a computer (Fig. 2, computer 23) for generating and communicating information (Col. 16, lines 3-11), and one or more output devices (Fig. 2, converters 18 and diplexers 19) operatively connected to said receiver and said computer for delivering to a viewer a mass medium program (Col. 5, lines 52-57) and computer information (Col. 16, lines 3-11), with said computer comprising one or more data storage locations (Col. 5, lines 45-48), said method comprising the steps of:

storing a timing signal (Col. 7, lines 5-9) and a plurality of a first data, each first datum designating a different type of signal (Col. 2, lines 38-42);

controlling said computer one or more times based on a comparison (Col. 5, lines 48-49), said first step of controlling comprising:

(a) selecting a first signal, each selected first signal including a control signal respecting a mass medium program presentation (Col. 5, line 49);

(b) storing each selected first signal at a storage location (Col. 5, line 49);

controlling said computer one or more times based on a comparison, said second step of controlling comprising:

(a) selecting a second signal, each selected second signal including a control signal respecting a mass medium program presentation (Col. 5, line 50);

(b) communicating each selected second signal to a processor or an output device (Col. 5, lines 54-55);

controlling said computer one or more times based on a comparison, said third step of controlling comprising:

(a) identifying a third signal, each identified third signal being a control signal designating a signal type (Col. 2, line 41);

(b) communicating each identified third signal to a processor or an output device (Col. 5, line 54);

controlling said computer one or more times based on a comparison, said fourth step of controlling comprising:

(a) selecting a first signal (Col. 5, line 49); and
(b) communicating some mass medium program information content in response to a control signal (Col. 5, lines 52-57);
and

presenting to a subscriber a mass medium program with local mass medium program information content (Col. 5, lines 52-57), with said mass medium program and said local mass medium program information content being outputted to said subscriber as parallel presentation at a plurality of output devices (Col. 5, lines 59-62).

For claim 11, Boland discloses a method of providing data of interest to a receiver station (Fig. 1, distribution terminal 4) from a remote data source (Fig. 1, subscriber terminal 6), said data of interest for use at the receiver station in generating or outputting a receiver specific datum (Col. 5, lines 49-57), said method comprising the steps of :

storing data at said remote data source (Col. 5, line 44);
receiving at said remote data source a query from said receiver station (Col. 5, lines 44-45);

transmitting said data from said remote data source to said receiver station in response to said step of receiving said query, said receiver station selecting and storing some of said transmitted data (Col. 5, lines 47-49);

transmitting from a second remote source (Fig. 1, head end 1) to said receiver station a signal (Col. 2, lines 16-25, 38-42) which controls said receiver station to select and process an instruct signal (Col. 5, lines 52-54) which is effective at said receiver station to coordinate presentation of said data with a second predetermined presentation sequence (Fig. 2, LUT data of the computer 23).

For claim 12, Boland discloses a method of communicating subscriber station information from a subscriber station to one or more remote data collection stations, said method comprising the steps of:

inputting a viewer's or participant's reaction at a subscriber station (Col. 5, lines 41-43);

receiving at said subscriber station information that designates an instruct signal to process or an output to deliver in consequence of subscriber input (Col. 10, lines 30-40);

determining the presence of said subscriber input at said subscriber station by processing said viewer's or participant's reaction (Col. 10, lines 48-52);

processing an instruct signal which is effective to coordinate presentation of data with a second predetermined presentation sequence at said subscriber station in consequence of said step of determining (Col. 5, lines 49-52);

transferring from said subscriber station to one or more remote data collection stations (Fig. 1, head end 1) an indicia

confirming delivery of said instruct signal from said step of processing or confirming delivery of said effect from said step of processing (Col. 2, lines 42-45).

For claim 13, Boland discloses that the instruct signal is input by a subscriber (Col. 5, lines 41-44), said method further comprising the steps of:

storing a subscriber instruction to receive one or more specific mass medium programs, data, news items, or computer control instructions (Col. 5, lines 41-44); and

receiving one or more specific mass medium programs, data, news items, or computer control instructions in accordance with said instruction (Col. 5, lines 49-57).

For claim 14, Boland discloses that the instruct signal is input by a subscriber (Col. 5, lines 41-44), said method further comprising the steps of:

storing a subscriber instruction to receive one or more specific mass medium programs, data, news items, or computer control instructions in a specific fashion (Col. 5, lines 41-44); and

receiving one or more specific mass medium programs, data, news items, or computer control instructions in accordance with said instruction (Col. 5, lines 49-57)

For claim 15, Boland discloses that the information that designates a specific subscriber input or said instruct signal is detected in an information transmission from a data of

programming source (Col. 5, lines 41-44), said method further comprising the steps of:

programming a processor to respond to information communicated from a data or programming source (Col. 5, lines 41-44);

receiving an information transmission from a data or programming source (Col. 5, lines 41-43);

inputting at least some of said information transmission to a control signal detector (Col. 5, line 44);

detecting data or an instruct signal in said information transmission (Col. 5, line 44); and

passing said detected data or instruct signal to said processor (Col. 5, line 44).

For claim 16, Boland discloses a method for controlling a remote intermediate data transmitter station (Fig. 1, distribution terminal 4) to communicate data to one or more receiver stations (Fig. 1, subscriber stations 6), with said remote transmitter station including a broadcast or cablecast transmitter for transmitting data (Fig. 2, converters 18), a plurality of selective transmission devices each operatively connected to said broadcast or cablecast transmitter for communicating data (Fig. 2, dippers 19), a data receiver (Fig. 2, filters 16, 25), a control signal detector (Fig. 2, VRAM 28), and a computer capable of controlling one or more of said selective transmission devices (Fig. 2, computer 23), and with

said remote transmitter station adapted to detect one or more control signals, to control the communication of data in response to one or more detected control signal, and to deliver data at its broadcast or cablecast transmitter (Col.), said method of communicating comprising the steps of:

receiving data to be transmitted by the remote intermediate data transmitter station and delivering said data to a transmitter, said data comprising an instruct signal which is effective at the receiver station to coordinate presentation of said data with a second predetermined presentation sequence (Col. 7, lines 10-30);

receiving one or more control signals which at the remote intermediate data transmitter station operate to control the communication of said data (Col. 7, lines 10-30); and

transmitting said one or more control signals to said transmitter before a specific time (Col. 7, lines 5-7).

For claim 17, Boland discloses that the specific time is a scheduled time of transmitting said data at said remote intermediate data transmitter station (Col. 7, lines 5-7).

For claim 18, Boland discloses the step of embedding a specific one of said one or more control signals in said data before transmitting said data to said remote transmitter station (Col. 7, lines 63-66).

For claim 19, Boland discloses a method of controlling a receiver station including the steps of:

detecting the presence or absence of a broadcast or cablecast control signal (Col. 7, line 59 to Col. 8 line 12);

inputting an instruct-to-react signal to a processor based on said step of detecting the presence or absence of a control signal (Col. 7, lines 64-65; Col. 8, lines 1-2);

controlling said processor to output specific information in response to said step of inputting an instruct-to-react-signal (Col. 5, lines 45-57);

coordinating presentation of data with a second predetermined presentation sequence on the basis of information received from said processor based on said step of controlling a processor (Col. 5, lines 45-57).

For claim 20, Boland discloses that a buffer is operatively connected to said processor for buffering input, and the method further comprising the step of inputting said instruct-to-react signal directly to said processor (Col. 8, lines 6-8).

For claim 23, Boland discloses a method of controlling a receiver station (Fig. 1, distribution terminal 4), said receiver station having a processor (Fig. 2, computer 23) for passing and executing instruction and a clock operatively connected to said processor (Fig. 2, Sync 27) for inputting a timing signal, said method comprising the steps of:

receiving a broadcast or cablecast transmission (Col. 5, lines 45-46);

demodulating said broadcast or cablecast transmission to detect an information transmissions thereon, said information transmission comprising an instruct signal which is effective to coordinate presentation of said data with a second predetermined presentation sequence (Col. 5, lines 46-57);

detecting said instruct signal on said information transmission and passing said instruct signal to said processor (Col. 7, lines 61-68);

delaying, under processor control, the passing of said instruct signal to a controllable apparatus (Col. 7, lines 61-68);

passing said instruct signal to said controllable apparatus on the basis of a timing signal (Col. 7, lines 5-7; Col. 8, 4-12);

controlling said controllable apparatus based on said instruct signal (Col. 8, lines 13-16).

For claim 24, Boland further discloses the steps of:

detecting a timing signal in said information transmission (Col. 3, lines 52-55);

passing said timing signal to said clock (Col. 3, lines 55-60);

timing, under control of said clock, the passing of said instruct signal based on said timing signal (Col. 3, lines 55-60).

For claim 25, Boland discloses a method of communicating data and update material to one or more mass medium programming receiver stations (Fig. 1, distribution terminal 4) each of which includes a broadcast or cablecast data receiver (Fig. 2, converters 18), a data storage device (Fig. 2, VRAM 28), a control signal detector (Fig. 2, VRAM 28), and a computer capable of processing data (Fig. 2, computer 23), and with each said receiver station adapted to detect and respond to one or more instruct signals and to store data for subsequent processing, said method of communicating comprising the steps of:

receiving data to be transmitted and delivering the data to a transmitter (Col. 6, lines 11-22);

receiving one or more instruct signals which at the receiver station are effective to coordinate presentation of said data with a second predetermined presentation sequence (Col. 5, lines 41-57);

transferring said one or more instruct signals to a transmitter (Col. 5, line 66 to Col. 6, line 10);

transmitting an information transmission comprising said data and said one or more instruct signal (Col. 6 line 9-10).

For claim 26, Boland discloses the step of embedding one or more instruct signals in a television signal (Col. 7, lines 63-66).

For claim 27, Boland discloses the step of transmitting directs said broadcast or cablecast transmission to a plurality

of receiver stations at the same time and each of said plurality of receiver stations receives or responds to said one or more instruct signals concurrently (Col. 13, line 49 to Col. 14, line 35).

For claim 28, Boland discloses the step of transmitting directs said broadcast or cablecast transmission to a plurality of receiver stations at different times and each of said plurality of receiver stations receives or responds to said one or more instruct signals at a different time (Col. 7, lines 5-7).

For claim 29, Boland discloses the steps of receiving said data unit at a receiver in the transmitter station, communicating said data unit from said receiver to a memory location, and storing said data unit at said memory location for a period of time prior to communicating said data unit to a transmitter (Col. 5, line 41 to Col. 6, line 10).

17. A series of interviews were held before prosecution began on this application. Unless identified specifically below in this part of the action, these interviews did not address the merits of any single application, but rather issues that are appropriate to all of the related "Harvey" applications.

The first interview was held on August 13, 1995. It was a personal interview. Attending were one of the applicants, Mr. Harvey, and his attorneys, Messrs. Scott and Woolston. Representing the PTO were Messrs. Godici, Yusko, Orsino, and Groody. Mr. Harvey and his attorneys were informed that because

of the large number of related applications, the examination would be performed by a team of examiners. As of the August 1995 interview there existed a problem with some of the applications being charged large entity fees when applicants believed that small entity status was deserved. The PTO has referred this matter to the Office of Assistant Commissioner of Patents, specifically Hiram Bernstein, a petitions attorney. Mr. Harvey's representatives will attempt to resolve this issue through Mr. Bernstein. At this time all of the related cases had not been received in the Group. No examination was planned until at least late October because the team members were managers, and needed to complete other end of fiscal year assignments and all employee performance ratings. The PTO requested that any amendments to the specification, other than to correct continuing status, be delayed. Mr. Harvey's representatives stated that no other amendments to the specification were actually planned. The PTO's goal will be to attempt to reduce the amount of paper passed between applicant and PTO since the cases are related and very difficult to move from cite to cite because of their size. Copies of the prior art only need to be filed once. The PTO will only send newly cited art once. Preliminary amendments are being prepared. The PTO however cautioned that the prosecution of the applications will not be delayed until applicants have filed these amendments. The PTO requested a chart establishing any relationships between cases and what parts of applicants'

disclosure related blocks of cases were directed to. It was not, at this time, determined whether this chart would become part of the official file. The PTO planned to research this. It was the PTO's intent to examine related cases simultaneously. The PTO welcomed any claim amendments to include resubmissions of all claims, whether amended or not. Mr. Harvey's representatives were informed that the issue of double patenting was expected to be a major issue.

On November 2, 1995, a telephonic interview was held between Mr. Woolston and Mr. Groody. Mr. Woolston indicated that two prior art statements were being completed, one for cases with a 1987 effective date, the other for cases with a 1981 effective date.

On November 30, 1995, a personal interview was held. Representing applicants were Messrs. Scott, Woolston, and Grabarek. Representing the PTO were Messrs. Yusko, Orsino, and Groody. The content of a simultaneously filed prior art statement was discussed. The PTO's copies of the parent files are missing the non-U.S. patents cited therein. The PTO requested copies of those prior art documents. Applicants gave the PTO a document showing which cases have already been amended. Since this document merely shows the status of any amended application, it has not been made part of the file record since that paper has no bearing on the merits of any issue before the PTO.

A second interview was held on later on November 30, 1995 between Mr. Scott and Mr. Groody. The sole topic discussed was double patenting. The discussion led to no conclusions on whether a double patenting rejections would be made in these applications.

An interview was held on December 6, 1995 between Mr. Scott and Mr. Groody. The discussion was directed to *In re Schneller*, 158 USPQ 210 (CCPA) and whether that decision will necessitate a double patenting rejection in any of these cases. Mr. Scott was asked whether a terminal disclaimer could be filed in all of the 327 related cases to obviate a possible double patenting rejection in each of these cases over each other. Mr. Scott agreed to consider this.

An interview was held on December 13, 1995 between Mr. Scott and Mr. Groody regarding the terminal disclaimer question above. Mr. Scott proposed filing a terminal disclaimer in about 250 of the 327 cases over each other if the PTO would have each of the about 250 issue within 4 or 6 months of each other. Mr. Groody felt that the PTO would be unwilling to suspend prosecution in some cases just to have other related cases issue close to each other. No agreement was reached.

Two interviews were held between Mr. Scott and Mr. Groody on April 2, 1996. Mr. Scott pointed out that, in parent file 5,233,654, there had been a restriction requirement. After reviewing the file, Mr. Groody indicated that there would not be a

Schneller double patenting rejection made in any case based on parent patent 5,233,654 and 5,335,277. The action recently sent out in 08/113,329 would be changed to reflect this point. Mr. Scott inquired whether a terminal disclaimer, in these applications, would have to be filed for all of the four Harvey patents (4,694,490; 4,704,725; 4,965,825; 5,109,414). Mr. Groody felt that all four should be disclaimed, if applicants elect to take that approach toward overcoming the double patenting rejections, because of the requirement in terminal disclaimers concerning common ownership. Mr. Scott indicated that in parent patent 4,965,825, there had been a multiplicity rejection. Mr. Groody will order the file, but felt that rejection would not overcome the Schneller double patenting rejections since the CCPA did not list this situation as an acceptable reason to file continuing cases. The Court limited it exception to "independent and distinct" claims. Mr. Groody acknowledged that the Board of Appeals may accept the multiplicity argument, but, in the absence of case law on this issue, he would still apply the Schneller rejections.

On June 10, 1996, Mr. Scott spoke with Mr. Groody on several topics. Related case 08/397,582 has been withdrawn from issue in Group 2200, and a new action will be mailed containing a double patenting rejection under *In re Schneller*. This application will now be examiner in Group 2600. Mr. Scott questioned whether applicants can withdraw the terminal disclaimer made in 397,582.

Mr. Groody was unsure of the answer, but later checked with Mr. Orsino, who informed him that MPEP 1490 controlled.

Mr. Groody still believes that 08/113,329 can be expedited at the Board. Mr. Scott can refer to the appeal brief to be filed in that case in responding to any application having a *Schneller* double patenting rejection.

A telephone interview was held on June 12, 1996 between Mr. Thomas Woolston and Marc E. Bookbinder representing the PTO. For S.N. 08/448,116, Mr. Woolston indicated that the supplemental preliminary amendment of Nov. 13, 1995 was incomplete and that a complete version of such would be filed shortly to perfect the submission as originally intended. Mr. Woolston also indicated that he intended to file a second supplemental preliminary amendment in this case bringing the total number of claims to 37.

Mr. Bookbinder indicated that the Group would like to have a complete grouping of applications in a manner that was submitted earlier for only a portion of the total filings. Mr. Woolston stated that such a grouping was available and that he would forward it to the Group as soon as possible.

Mr. Bookbinder requested that each future amendment filed be accompanied by an electronically readable version thereof. Mr. Woolston stated that he could provide a disk to include one or more amendments made to applications as they were filed.

Mr. Woolston stated that he has reviewed actions that have been mailed and that he takes issue particularly with the double

patenting rejections and the way In re Schneller has been applied. Mr. Bookbinder suggested that Mr. Woolston contact Mr. Groody of Group 2600 to discuss the particulars of the double patenting rejections since he was the author of those rejections.

On November 25, 1996, a telephone interview was held between Mr. Scott and Mr. Groody. Mr. Groody informed Mr. Scott that expedited processing at the Board for 113/329 would be arranged by the Office. No action on applicants' part was necessary. Applicants no longer had to submit a listing of related cases, since the examiners did not need that. Finally, 397,582, which has been withdrawn from issue, will be examined over all of the art cited in all of the later filed Harvey cases.

18. The art cited in the information disclosure statements submitted by applicants has been considered. The examiner initialed 1449 forms will be sent in a later action.

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Groody whose telephone number is (703) 308-5461.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-4700.


James J. Groody
Supervisory Patent Examiner
Art Unit 262
